INVESTIGATOR'S ANNUAL REPORT

United States Department of the Interior

National Park Service

All or some of the information you provide may become available to the public.

OMB # (1024-0236)
Exp. Date (11/30/2010)
Form No. (10-226)

Reporting Year:	**Park:**	**Select the type of permit this report addresses:**
2004	Shenandoah NP	Scientific Study

Name of principal investigator or responsible official:	**Office Phone:**
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Additional investigators or key field assistants (first name, last name, office phone, office email)

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Project Title (maximum 300 characters):

Development of Meteorological Database and Summary Information

Park-assigned Study or Activity #:	**Park-assigned Permit #:**	**Permit Start Date:**	**Permit Expiration Date:**
SHEN-00347	SHEN-2008-SCI-0002	Jul 01, 2004	Dec 31, 2005

Scientific Study Starting Date:	**Estimated Scientific Study Ending Date:**
Jul 01, 2004	Dec 31, 2005

For either a Scientific Study or a Science Education Activity, the status is:

Continuing

For a Scientific Study that is completed, please check each of the following that applies:

__ A final report has been provided to the park or will be provided to the park within the next two years

__ Copies of field notes, data files, photos, or other study records, as agreed, have been provided to the park

__ All collected and retained specimens have been cataloged into the NPS catalog system and NPS has processed loan agreements as needed

Activity Type:

Inventory

Subject/Discipline:

Atmosphere / Climate / Weather

Purpose of Scientific Study or Science Education Activity during the reporting year (maximum 4000 characters):

Natural Resource Management staff along with staff members from the University of Virginia are developing a comprehensive database that will consolidate most meteorological information that has been collected within the park. A summary document that describes the various monitoring systems and availability of data will be prepared and a web-based interface to the data will also be developed.

Meteorological data (precipitation amounts, temperatures, wind speeds and direction, relative humidity, etc.) are frequently sought. Weather conditions influence park operations and maintenance, fire management, and visitation and are therefore useful in scheduling work, public programs, fire use, and so forth. This data is also of great value scientifically. It provides ecological context for research

projects and monitoring data and may be directly linked to certain types of natural resource projects and studies.

Findings and status of Scientific Study or accomplishments of Science Education Activity during the reporting year (maximum 4000 characters):

The Shenandoah Climate Database Development project inventories, assesses, and assembles historical climate data from myriad sources in a useful, accessible, and clean Microsoft Access database. The project also includes assessments regarding the suitability of various systems for creating a continuous, high-quality data stream into this database. This database is intended to be operational, with interactive capability.

Pursuant to these goals, the SNP Database has incorporated a number of datasets from various current and historical data sources. The datasets have been included as tables, with accompanying additional derived tables for greater usability and linkages across disparate data sources.

The primary datasets included are the National Weather Service Cooperative Observer Network data, the Automated Flood Warning Service IFLOWS data, nearby METAR observations from regional airports, SCAN data from VDOT, and National Atmospheric Deposition Program data. Also included are RAWS fire weather data and a myriad of smaller data sets taken within and near the SNP. Only digitized data sets were incorporated at this time.

In addition to the datasets, the final product includes a summary report on the individual data sources, and an HTML/GIS interactive map with selected climate summaries for available stations in and near the SNP.

The project is within budget. However, the project is currently in the no-cost extension period, with delivery the first week of November. The contract is with the Virginia State Climatology Office and its employees, in cooperation with the Shenandoah National Park.

For Scientific Studies (not Science Education Activities), were any specimens collected and removed from the park but not destroyed during analysis?

No

Funding specifically used in this park this reporting year that was provided by NPS (enter dollar amount):	**Funding specifically used in this park this reporting year that was provided by all other sources (enter dollar amount):**
$40000	$0

List any other U.S. Government Agencies supporting this study or activity and the funding each provided this reporting year: